2006 - 2010

Montana Nutrition and Physical Activity State Plan to Prevent Obesity and Other Chronic Diseases

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OFFICE OF THE GOVERNOR
STATE OF MONTANA

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We are proud to introduce the 2006-2010 Montana Nutrition and Physical Activity Plan to Prevent Obesity and Other Chronic Diseases. The overarching purpose of the plan is to help improve the health and welfare of Montanans by reducing chronic diseases associated with obesity.

Obesity in the United States has reached epidemic proportions, and Montana is not immune. Obesity increases the risk of illness due to high blood pressure, high cholesterol, type 2 diabetes, and other diseases. The personal and economic costs of these conditions can be devastating.

Although Montanans are relatively fit compared to residents of other states, half of all adult residents are still overweight or obese. Fortunately, Montana has many assets that we can capitalize on to try to stop and perhaps even reverse the trend toward obesity and other chronic illnesses. These include an abundance of beautiful outdoor recreation sites, a traditional heritage emphasizing physical activity, high rates of breastfeeding, and a population that is still among the most active in the nation. By building on these and other strengths, we can help encourage Montanans to eat well, move more, and enjoy longer, healthier lives.

The plan described in this document emphasizes policy and environmental changes that existing institutions can make to increase the likelihood that Montanans will eat healthier food and engage in more physical activity. It is a wonderful start, but the real work is ahead of us. In order to make physical activity and healthy eating a part of our everyday lives, institutions such as schools, day care centers, health facilities, worksites, and tribal and community agencies, will need to find ways to promote these activities among the people whose lives they touch.

We challenge everyone to work together to fulfill the vision of moving Montanans toward healthy lifestyles in healthy communities.

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Acknowledgements

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Executive Summary

This *State Plan* outlines goals, objectives and strategies to prevent and reduce overweight and obesity among Montanans. Overweight and obesity raise the risk of illness from type 2 diabetes, heart disease, high blood pressure, high cholesterol, certain types of cancer, arthritis, gallbladder disease, and other chronic conditions.[1] During the past three decades the prevalence of overweight and obesity among American adults and children has increased dramatically.[2] In 2004, more than half of all adults in Montana were overweight or obese,[3] and the number of children who were overweight or at risk for becoming overweight increased.[4] If this trend is not reversed, it will have serious negative personal and economic consequences for Montanans.

The *State Plan* is intended as a starting point in identifying and coordinating efforts to promote healthier lifestyles among our state's residents. Activities outlined in the *State Plan* focus on achieving the following goals:

Increasing Physical Activity

Increasing Fruit and Vegetable Consumption

Promoting Caloric Balance

Increasing Breastfeeding of Infants

Members of the Cardiovascular Disease / Obesity Prevention Task Force who helped create this *State Plan* committed their time and knowledge to workgroups addressing these goals in: worksites; healthcare; the broader community; and settings impacting children, youth, and families. The priority populations addressed in this plan are 1) children and 2) adults in the workplace. Key strategies for this plan include:

- Piloting policies and practices to increase opportunities for physical activity and healthy eating at worksites.
- Providing training to health care providers and hospital personnel working to make Montana hospitals "Breastfeeding Friendly."
- Delivering technical assistance to city and county planners and bicycle and pedestrian advocates in their work to make communities more walkable and bikeable.
- Supporting professionals and community leaders in American Indian communities as they design and implement efforts to promote healthy nutrition and physical activity opportunities for children.
- Piloting interventions to promote healthy nutrition and physical activities in preschool and daycare facilities.

The *State Plan* objectives will be accomplished through the joint efforts of state agencies, nonprofit organizations, tribal leaders, businesses, and schools. The NAPA program will play a facilitative role in supporting and coordinating these efforts.

The Overweight and Obesity Epidemic: A Call to Action

Across Montana, in small towns, in urban areas, and on reservations, community residents and leaders are expressing concern about the health dangers of obesity, and they are seeking ways to promote good nutrition and physical activity. Interest in this topic can be found among individuals in virtually all spheres of life – for example, parents and grandparents, teachers, employers, elected officials, and health care professionals. This is extremely fortunate because a successful effort to make healthy eating and adequate physical activity a part of the daily life of all the state's residents will require changes in homes, schools, worksites, neighborhoods, and other settings. The *State Plan* is an effort to begin identifying and coordinating what individuals, organizations, state agencies and other institutions can and will do to promote healthier lifestyles in the coming years. It is intended as a starting point and resource for all the people who want to take action in their own area of influence, so that they can become a part of the whole effort to bring about the vision of healthy people in healthy communities throughout the state.

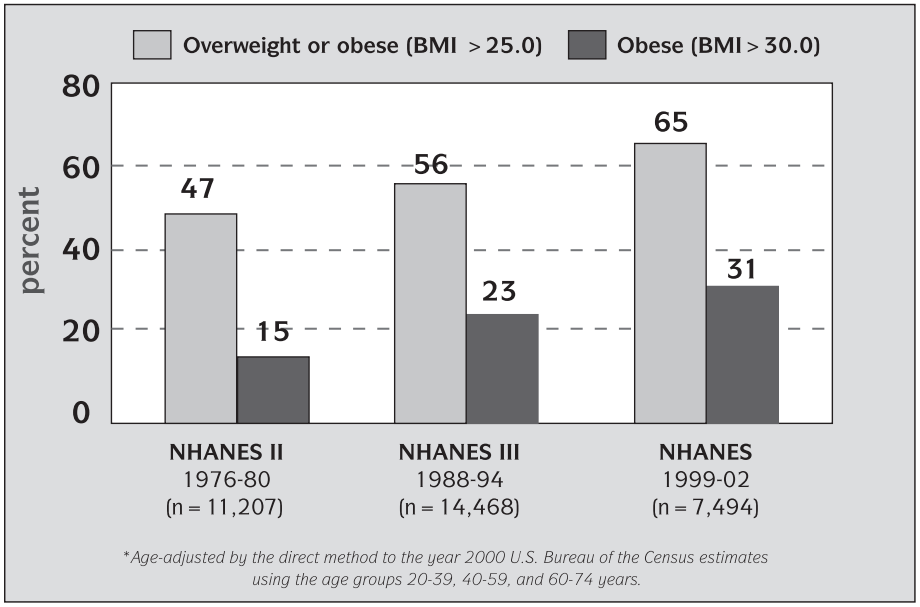
The obesity epidemic is gaining momentum in America and in Montana as adults and children are consuming more calories and spending less time engaged in physical activity. Overweight and obesity substantially raise the risk of illness from high blood pressure, high cholesterol, type 2 diabetes, heart disease, gallbladder disease, arthritis, sleep disturbances and problems breathing, and certain types of cancers.[5]

Overweight and obesity are defined by a measurement called the Body Mass Index (BMI). The BMI expresses the relationship (or ratio) of weight-to-height and is an indicator of overweight and obesity. Adults with a BMI of 25 to 29.9 are considered overweight, while adults with a BMI of 30 or more are considered obese.[6]

During the past three decades, the prevalence of overweight and obesity among U.S. adults has increased dramatically, as shown in Figure 1 below.

Figure 1

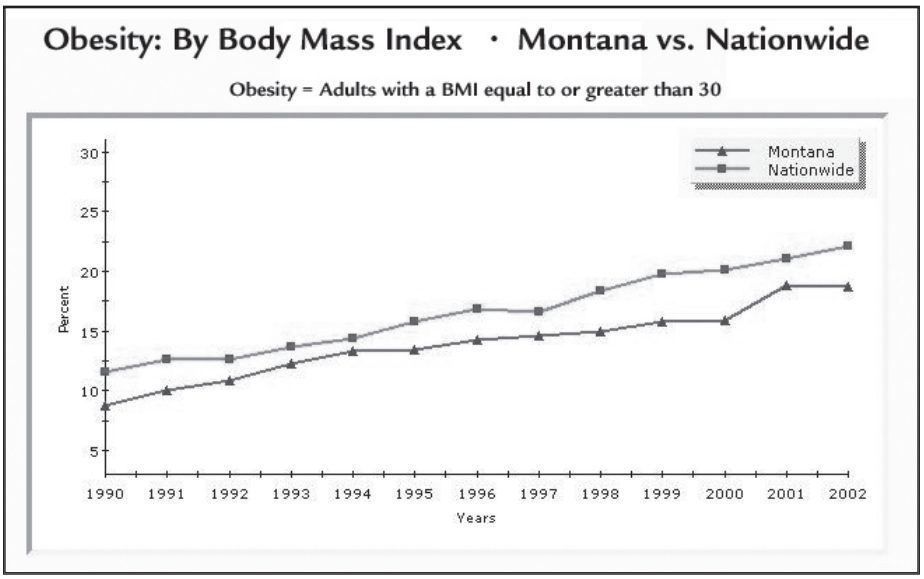
Age-adjusted* prevalence of overweight and obesity among U.S. adults, age 20-74 years



Source: http://www.cdc.gov/nchs/products/pubs/pubd/hestats/obese/obsefig2.GIF

According to the 2004 Behavioral Risk Factor Surveillance System (BRFSS), 37% of Montana adults are overweight, and 20% of Montana adults are obese.[7] In other words, more than half of all adults in the state are beyond a healthy weight and are therefore at increased risk for several chronic diseases.

Figure 2



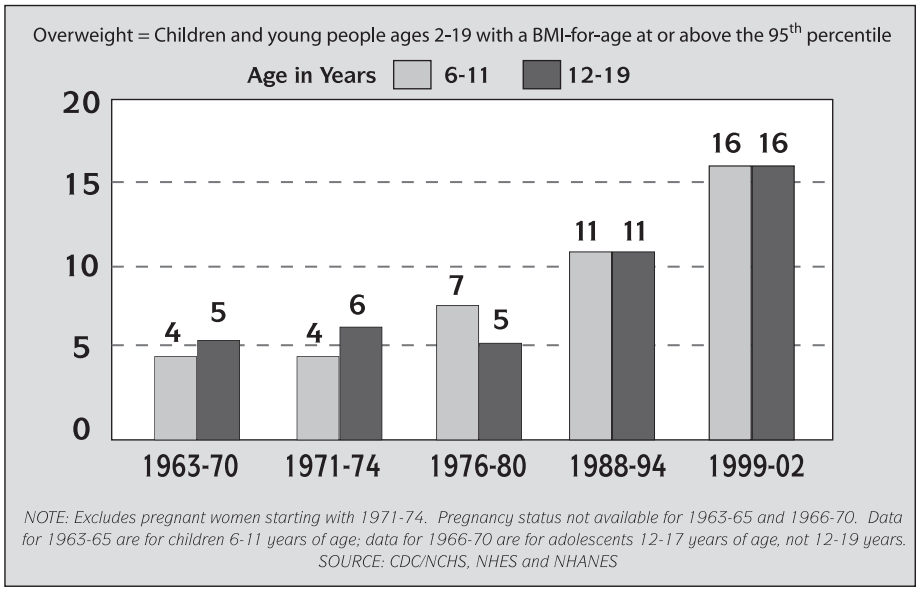
Source: Centers for Disease Control and Prevention (CDC). Behavioral Risk Factor Surveillance System Survey Data. Atlanta, Georgia: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2002.

Childhood Overweight

While excess weight creates negative health consequences for Americans of all ages, it is particularly devastating for children. The consequences of overweight in childhood are psychosocial and physical. Overweight children face increased cardiovascular risk factors such as abnormal glucose tolerance, hypertension and high cholesterol.[8] Between 1979 and 2000, annual hospital costs for overweight-related conditions in young people aged 6-17 increased from $35 million to $127 million.[9] In addition, overweight children are more likely to become overweight adults and to face ongoing health risks as a result.[10] Nationwide, the prevalence of overweight among 6- to 11-year olds more than doubled and the prevalence of overweight among 12- to 19-year olds tripled between 1980 and 2000.[11] By the end of the twentieth century, 16% of American children and adolescents were overweight.[12] According to the 2005 Youth Risk Behavior Survey (YRBS), 9% of Montana high school students are overweight, and an additional 13% are at risk of becoming overweight. (Overweight among individuals 2-19 years old is defined as the 95th percentile or greater of BMI-for-age, and at risk for overweight is defined as the 85th percentile or greater, but less than the 95th percentile, of BMI-for-age). [13]

Figure 3

Prevalence of overweight among children and adolescents ages 6-19 years



Source: http://www.cdc.gov/nchs/products/pubs/pubd/hestats/overwght99.htm

In 2001, the US Surgeon General issued the *Call to Action to Prevent and Decrease Overweight and Obesity*, identifying 15 activities as national priorities for immediate action. (See Appendix B).[14] In 2002, the US Congress charged the Institute of Medicine (IOM) with developing a national agenda for decreasing the prevalence of overweight in the nation's children and youth. To address this charge, the IOM appointed a committee of 19 experts in child health, obesity, nutrition, physical activity, and public health. The final report from the committee was released on September 30, 2004 and presented a plan for action. [15]

Courtesy of 5 A Day

Courtesy of Blazesports Georgia

Montana's Response to the Call

This *State Plan* was developed by NAPA staff in concert with the Montana Cardiovascular Disease / Obesity Prevention Task Force. The latter represents a broad spectrum of partners who participated throughout all phases of the planning process, beginning in October of 2004.

Goals

The goals of the *State Plan* are to:

1. Increase physical activity among Montana residents.
2. Increase fruit and vegetable consumption among Montana residents.
3. Promote caloric balance among Montana residents.
4. Increase breastfeeding of Montana infants.

Task Force members as well as other partners committed their time and knowledge to workgroups addressing these goals in: worksites; healthcare; the broader community; and settings impacting children, youth, and families. Because American Indians experience significantly higher rates of diseases related to overweight and obesity (particularly type 2 diabetes and cardiovascular disease),[16] tribal members were represented on each workgroup. In addition, a Native American Workgroup was formed to generate suggestions for eliminating disparities for this racial group. Workgroups met on a regular basis to develop SMART[17] objectives related to the particular goals and strategies to move the objectives forward.

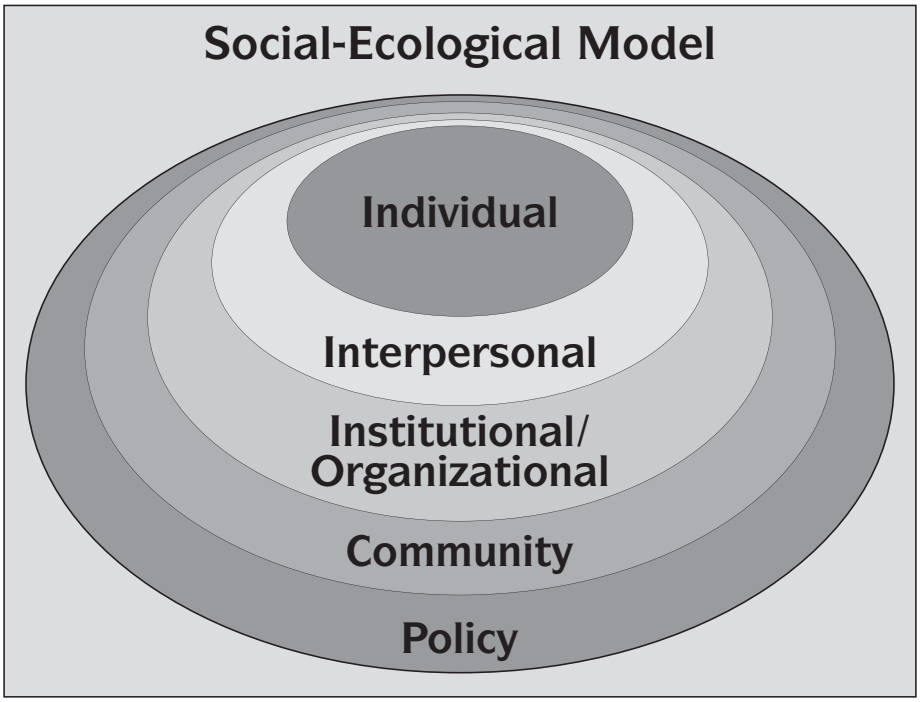
These goals were selected because they are based on scientific evidence documenting that they are promising strategies for helping reduce or prevent overweight and obesity. For example, the evidence that physical activity can play an important role in helping people achieve and maintain a healthy weight is strong. The techniques described in this *State Plan* for increasing physical activity are drawn from *The Community Guide to Preventive Services,* a systematic review of science-based population-oriented health interventions.[18] In other cases, because the field of obesity prevention on a broad scale is relatively new, research into effective strategies is in an earlier stage. The evidence is suggestive (but not conclusive) that increasing breastfeeding, increasing fruit and vegetable consumption, decreasing sugar-sweetened beverage consumption, decreasing time spent watching television, and monitoring portion sizes can help people maintain a healthy weight. Because of the severity of the obesity epidemic, the CDC Division of Nutrition and Physical Activity has recommended that states not wait for the best possible evidence, but rather that they act on the best available evidence in an effort to halt and reverse the trend of rising weights among Americans.

Socio-Ecological Model

The *State Plan* uses a socio-ecological framework.[19] Socio-ecology refers to the interrelations between people and their social and physical environments. The general thesis is that environments can either promote or restrict certain behaviors. For example, if an individual does not feel safe walking in a park because of overgrown bushes along a pathway, he or she will not go to that park. Or, if people cannot purchase fresh produce or other healthy foods at reasonable prices within their respective communities, they will eat whatever food is available.

The socio-ecological model can be thought of as an onion, with one layer wrapping around another. There are five "layers" in the model, and each layer is influenced by the other layers.

Figure 4



- The individual is at the center of the model. At this level, we consider the internal determinants of behavior, such as knowledge, attitudes, beliefs, and skills. Individual behaviors can be changed by increasing knowledge, influencing attitudes, challenging beliefs, and/or teaching new skills. For Example: individuals are targeted for certain educational campaigns (such as exercise programs), skill-building seminars and courses, or one-on-one counseling to change perspectives and beliefs. In the socio-ecological model, it is important to realize that the individual is largely influenced by his/her family, educational institution, worksite, community, and by the policies and laws that influence society as a whole.

- The next layer (working outward from the center) is the interpersonal. Humans are social animals who group together for survival, support, social identity, knowledge, and skills. Interpersonal interventions target groups, such as family members or peers. Examples include: information for parents; providing trained home visitors; or developing support groups (such as weight management groups or walking clubs).

- The institutional/organizational layer is the third level. Organizations are groups that often have a formalized purpose, mission, and written or unwritten agreements regarding acceptable behavior (such as schools, health care settings, work places, faith communities, or community organizations). At this level, an attempt is made to change the policies, practices, and/or physical environment of an organization. Examples include: providing flex time and/or facilities for physical exercise, providing healthful dining option, or encouraging team exercise experiences.

- At the community level, all efforts of all members of a community (such as community organizations, workplaces, schools, community leaders, and private citizens) are coordinated to bring about change. Examples include: collaboration among community leaders to influence social norms and policies about nutrition; forming a community coalition to assess the availability of high quality, nutritious foods in neighborhoods and local food establishments; developing educational presentations for other groups; developing a media advocacy strategy promoting

the need for environments that support healthy eating; or working with local community groups to establish neighborhood walking trails.

- The policy level forms the outermost layer of the socio-ecological model. This level deals with developing and enforcing policies and laws that can increase beneficial health behaviors. Example: a state law ensuring that breastfeeding is allowed in all public places.

Priority Populations

- **Children**


Gauge Lowdon Ackerman Dancing at MSU Pow Wow 2006

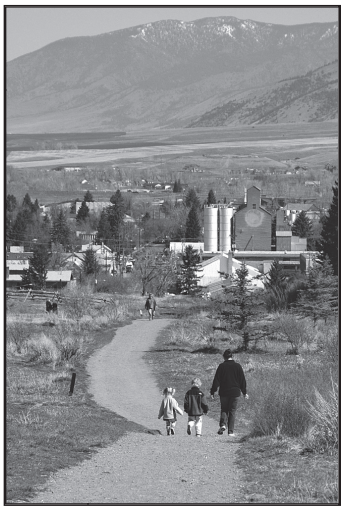
Overweight in childhood and adolescence is a predictor for obesity in adulthood.[20] Overweight is also reported to be the most significant factor in the dramatic escalation of type 2 diabetes in youth and contributes to other health problems (such as asthma, hypertension, and orthopedic complications).[21] African American, Hispanic American and American Indian children and adolescents have particularly high overweight prevalence.[22] Nationwide, the percentage of American Indian children with a BMI-for-age at or above the 95th percentile is more than twice as high as it is in the general population.[23] The prevalence of overweight among American Indian children has serious implications for their immediate and long-term health, and for the health of their communities. The strategies in this plan that address nutrition and physical activity among children apply to all young people in Montana, including American Indian children. For example, strategies that will be implemented in settings such as schools and WIC and Head Start Programs will impact American Indian as well as non-Indian young people. Because the risk for obesity and related chronic diseases among American Indian children is so great, some additional strategies will be implemented through organizations specifically serving American Indians and will focus special attention on promoting health among tribal young people.

- **Adults in the workplace**

In Montana, according to the 2000 census, 701,168 people are age 16 and over. Of that number, 71% of males (245,572 of 346,102) are employed and 60% of females (212,734 of 355,066) are employed.[24] While those percentages include people who are self-employed, the vast majority work in an established workplace for at least part of the day. This makes the workplace the most advantageous arena for promoting healthy nutrition and physical activity.

Goal 1: Increase Physical Activity among Montana Residents

Sedentary Lifestyles



Courtesy of Montana State University

For a variety of reasons, Americans today tend to be far more sedentary than in past eras. Modern technology has replaced many of the physically exerting jobs of the past, and in today's market, most wage-earners are sitting at a desk for the majority of their work days. Communities are built to accommodate drivers, not walkers. And, outdoor recreational activities are more and more often replaced by indoor activities such as watching television and playing computer games.

In tribute to the wealth of outdoor recreational activities in Montana, we have one of the highest percentages of adults in the nation that meet or exceed the minimum physical activity requirements, according to the 2003 BRFSS.[25] However, more than 40% of Montana adults are not meeting minimum physical activity guidelines and 20% are completely sedentary.

In the past, many Montanan livelihoods were intimately tied to the land and one's ability to work it through farming and ranching. Montana childhood experiences of yesteryear were filled with hours of natural, vigorous outdoor play, walking or biking to school, and participating in physical chores that were necessary for the family's economic stability. Today, housing and commercial developments are replacing agricultural land. These economic and cultural changes have affected the way Montanans earn their livelihood as well as created more dependence on the automobile for transportation. We have "engineered" physical activity out of our lives, and the results are not healthful. Now, we must find new ways to build physical activity into the daily routines of children, adults and Montana families.

Benefits of Physical Activity

Physical activity is a key factor in achieving and maintaining a healthy weight, and it offers many additional benefits. In fact, physical activity is one of 10 leading health indicators listed in the Department of Health and Human Services US document *Healthy People 2010: Understanding and Improving Health (Healthy People 2010)*. [26] People who are physically active are less likely to die of coronary heart disease, the nation's leading cause of death, and they are less likely to develop many chronic diseases such as high blood pressure, type 2 diabetes, osteoporosis, and certain cancers.[27] In addition, physical activity reduces symptoms of anxiety and depression, promotes healthy bones and joints and reduces arthritis pain.[28] Because the physical and mental health benefits of physical activity are well documented, and because the economic costs of inactivity and obesity are high, public insurance programs and employers who provide insurance benefits to employees have an economic interest in promoting physical activity.[29] For school children, exercise is associated with improved academic outcomes and reduced anxiety, depression and disruptive behavior.[30]

Opportunities

The state of Montana has many opportunities to increase the physical activity of all residents.

Outdoor Activities

- Montana is still a place where people can enjoy outdoor activities under the grandeur of the "Big Sky." People who live and work in Montana as well as those who visit the state are often drawn here because of the plethora of hiking, biking, skiing, rafting, and other outdoor activities that exist.

Courtesy of Crow Tribal Health

Walkable Communities

- Because our communities are relatively small and (in comparison to other states) undeveloped, we have the opportunity to promote more active community environments. Encouraging developments with a more traditional neighborhood design, such as streets connected in a more grid-like style with sidewalks/bike lanes and trees and stores make walking and biking an easier, safer, more convenient and more enjoyable choice.

- In 2005, the US Department of Transportation awarded $1 million to Montana to orchestrate "Safe Routes to School" programs for infrastructure projects and education/promotion campaigns to make it safer for children to walk and bike to school.

School Wellness

- The Montana School Board Association, the Montana Office of Public Instruction (OPI) and the Montana Board of Public Education are supportive of school wellness policies. Such policies will help pave the way for increased physical activity of staff, students, and (indirectly) their families.

- A number of advocacy organizations in Montana are willing to work with schools to determine how to raise the physical activity of students in a way that is affordable.

Courtesy of University of Montana Rural Institute Center for Excellence in Disability, Education, Research and Service

Worksite Wellness

- In recent years the DPHHS Cardiovascular Health Program has surveyed hundreds of large and small employers across Montana and has identified a strong interest among many employers in promoting physical activity and other healthy behaviors among employees. In 2005, the Missoula City-County Health Department surveyed 250 local employers with similar results. These employers are motivated by a variety of factors including a desire to reduce absenteeism, increase productivity, increase staff morale, and control rising health insurance costs.

- Some employers are already instituting innovative weight control and fitness programs. For example, the State of Montana offers the *Why Weight* program, a pilot weight loss project that reimburses eligible employees up to $300 for reducing their BMI (they must be willing to speak with the health coach). In 2005, the State also piloted a fitness program for hunters, which it plans to repeat in coming years. Similarly, the Joint Powers Trust, which provides group health benefit plans to thousands of city and county employees, is introducing a program to promote physical activity and other healthy behaviors in an effort to reduce insurance premiums. Information on the financial "return on investment" will be tracked, analyzed, and shared with other employers. At the same time, Blue Cross Blue Shield of Montana has designed and offers to their employer groups worksite health promotion tools, resources, and training at no additional cost, all in an effort to assist these groups in managing their health risk. In addition, the Montana Council for Worklife Wellness is a statewide coalition of people working on promoting health in the workplace. These are just a few examples of ways that employers and even the insurance industry are working to promote physical activity and other healthy behaviors among Montana workers.

Minimum Recommendations for Physical Activity

The minimum recommendations for physical activity are as follows:[31]

For adults:

- 30 minutes of moderate physical activity at least five days a week can reduce the risk of chronic disease. Most people can receive even greater health benefits by engaging in physical activity of longer duration or greater intensity.

- 60 minutes of moderate-to-vigorous physical activity on most days of the week is recommended to help prevent gradual unhealthy weight gain in adulthood.

For previously overweight or obese adults:

- 60-90 minutes of moderate physical activity most days of the week can help sustain weight loss.

For children and teens:

- At least 60 minutes of moderate-to-vigorous physical activity every day of the week is recommended.

Moderate physical activity consists of activity that raises the pulse above the resting heart rate but does not make the person perspire or breathe heavily. Examples include brisk walking, gardening, dancing, and bicycling slowly.

Vigorous physical activity consists of activity that makes the person perspire and breathe heavily. Examples include jogging, playing basketball, and cross-country skiing.

Objective 1A To Increase Physical Activity:

By 2006, establish a statewide Physical Activity Advisory Council to assist local communities in promoting policy and environmental supports for increasing physical activity for all Montanans.

Performance Indicators:

- Intact representative Advisory Council.
- Activities consistent with promotion of policy and environmental supports.

Measurement:

- Document review, including Advisory Council membership list, meeting agendas, and minutes.

Strategies:

1. Identify and recruit members to establish an Advisory Council.
   Lead Agency: NAPA
2. Assist the Advisory Council in formulating a strategic plan for action.
   Lead Agency: NAPA
3. Coordinate efforts to secure funding/resources for projects identified in the strategic plan.
   Lead Agency: NAPA
4. Facilitate the exchange of information among Advisory Council members and local coalitions who promote (or would like to promote) physical activity through communication mechanisms such as an Advisory Council listserv, NAPA web site, conference calls, and face-to-face meetings. Prospective Advisory Council members include but are not limited to those on the following page:
   Lead Agency: NAPA

For more information about the Physical Activity Advisory Council or to become involved, contact NAPA at (406) 994-5734 or email costakis@montana.edu

Fish, Wildlife and Parks	Support and, as possible, fund efforts to increase the length, accessibility and connectivity of trails for non-motorized use in urban areas
University of Montana Rural Institute	Work with community-based Montana Disability and Health Accessibility Ambassadors and others to assess, promote, and disseminate information about accessible physical activity opportunities for people with disabilities
Cascade County	Pilot a county-based multi-agency coalition to promote collaborations that will increase awareness of and access to physical activity opportunities among county residents
MT Department of Transportation	Promote the use of "Safe Routes to School" funds to support city and county efforts to make environmental changes that will enable students to walk or bike to school safely
MSU Division of Health Sciences	Network with associations of medical professionals to promote physical activity as a method of preventing obesity
National Parks Service, Sonoran Institute/ Montana Smart Growth Coalition	Deliver technical assistance on topics such as land use planning, street and trail connectivity, and pedestrian- and bicycle-friendly development
Missoula City-County Health Department	Pilot projects to increase physical activity in schools, worksites and community settings

Objective 1B To Increase Physical Activity:

By 2010, increase the number of large* school districts that adopt written implementation plans consistent with current physical activity guidelines.**

**The ten school districts in Montana with the highest enrollment.*

***"Current physical activity guidelines" defined as recommendations in the USDA Dietary Guidelines for Americans, 2005.*

Performance Indicator: Written implementation plans that are consistent with physical activity guidelines.

Measurement: Pre/post surveys of the ten largest school districts in Montana, using a rating system to determine consistency with physical activity guidelines (based on Action for Healthy Kids model policy guidelines).

Strategy:

1. Disseminate school wellness policy implementation tools highlighting model written implementation plans to all school districts in the state.
   Lead Agencies: Action for Healthy Kids, OPI

Objective 1C To Increase Physical Activity:

Through 2009, maintain or improve the 2005 percentage of Montana high school students (14%) who report that they engaged in at least one hour of physical activity every day during the previous 7 days.

Performance Indicator: 14% (or more) of students report engaging in at least one hour of physical activity every day during the previous 7 days.

Measurement: YRBS.

Strategies:

1. Publicize school wellness policy implementation tools highlighting model written implementation plans.
   Lead Agencies: Action for Healthy Kids, OPI

2. Provide technical assistance (including consulting services, links to relevant web sites, and access to alternative physical activity curriculums) to schools as they operationalize written implementation plans.
   Lead Agency: NAPA
3. Provide technical assistance, including evaluation, to at least one model K-12 (Kindergarten-12) school or high school, and disseminate the evaluation information to Montana educators.
   Lead Agencies: Team Nutrition, NAPA
4. Promote "Safe Routes to School" in Montana communities.
   Lead Agency: MT Department of Transportation
5. Encourage schools to enroll students in "Big Sky Fit Kids," a 3-month fitness program for youth 18 and under, and track participation.
   Lead Agency: Big Sky State Games

Objective 1D To Increase Physical Activity:

Through 2009, maintain or improve the 2005 percentage of Montana 7th and 8th grade students (15%) who report that they engaged in at least one hour of physical activity every day during the previous 7 days.

Performance Indicator: 15% (or more) of students report engaging in at least one hour of physical activity every day during the previous 7 days.

Measurement: YRBS.

Strategies:

1. Publicize school wellness policy implementation tools highlighting model written implementation plans.
   Lead Agencies: Action for Healthy Kids, OPI
2. Provide technical assistance (including consulting services, links to relevant web sites, and access to alternative physical activity curriculums) to schools as they operationalize written implementation plans.
   Lead Agency: NAPA
3. Provide technical assistance, including evaluation, to at least one model K-12, K-8, or middle school, and disseminate the evaluation information to Montana educators.
   Lead Agencies: Team Nutrition, NAPA
4. Promote "Safe Routes to School."
   Lead Agency: MT Department of Transportation
5. Encourage schools to enroll students in "Big Sky Fit Kids" and track participation.
   Lead Agency: Big Sky State Games

Objective 1E To Increase Physical Activity:

By 2010, complete and evaluate at least one intervention using one of the *Community Guide* physical activity interventions (selected from the list below), and disseminate results through the Advisory Council and the NAPA website.[32]

Performance Indicator: The evaluation of at least one intervention designed to increase physical activity.

Measurement: Document review, including an evaluation plan and completed evaluation report of the community-based intervention.

Strategies:

1. Pilot and evaluate policies and practices to promote physical activity at worksites in at least two communities.
   Lead Agencies: Missoula and Flathead City-County Health Departments, NAPA
2. Maintain, evaluate, and enhance low-cost physical activity programs such as "Steps to a New You" and "Shape Up Montana"/"Big Sky Fit Kids" in rural counties throughout Montana.
   Lead Agencies: MSU Extension, Big Sky State Games
3. Plan and implement a project to provide culturally appropriate physical activity opportunities for American Indian children.
   Lead Agencies: Montana/Wyoming Boys and Girls Club Native American Alliance, St. Labre Indian Education Association, Indian Health Service Billings Area Office
4. Provide a Nutrition and Physical Activity Self-Assessment for Childcare (NAP SACC) kit to at least four interested preschools or daycare facilities, and deliver training workshops and technical assistance as appropriate.
   Lead Agency: NAPA
5. Create and publicize an incentive system to recognize preschool and childcare facilities that exceed minimum standards for physical activity.
   Lead Agency: DPHHS Child and Adult Care Food Program
6. Adapt, evaluate and disseminate a version of "Steps to a New You" for older adults.
   Lead Agency: MSU Extension
7. Pilot a community-wide campaign to promote physical activity in at least one county, and evaluate and disseminate results.
   Lead Agency: Cascade County Physical Activity Council

Objective 1F To Increase Physical Activity:

By 2010, increase minutes per day of moderate and/or vigorous physical activity among American Indian children at one reservation preschool or daycare facility.

Performance Indicator: Increased minutes of moderate or vigorous physical activity conducted at one facility.

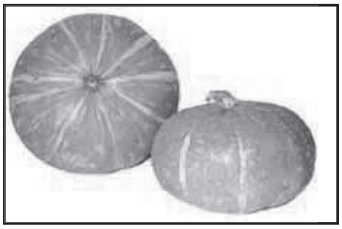
Measurement: Activity logs listing the number of minutes of moderate to vigorous physical activity conducted at one preschool/day care facility prior to and following the initiation of the intervention.

Strategies:

1. Introduce a physical activity component into the curriculum for early childhood education at tribal colleges.
   Lead Agency: MSU Early Childhood Education Distance Partnership Program
2. Host a train-the-trainer training for preschool providers, dietitians, diabetes educators, community health representatives, and other stakeholders serving American Indians. The training will prepare participants to teach parents/guardians about the physical activity and nutrition needs of children, with a focus on infants and children up to age 5.
   Lead Agency: NAPA
3. Provide incentives for parents/guardians of American Indian infants and children up to age 5 who complete courses on physical activity and nutrition needs of preschool aged children.
   Lead Agency: NAPA
4. Provide mini-grants to reservation-based agencies and Urban Indian Clinics to support increasing opportunities for physical activity among American Indian children, including children aged birth-5.
   Lead Agency: NAPA

Goal 2: Increase Fruit and Vegetable Consumption among Montana Residents

Recommendations



Courtesy of 5 A Day

The *2005 Dietary Guidelines for Americans* were released in January of 2005. Whereas eating a healthy balance of nutritious foods was underscored in the *Dietary Guidelines*, a strong emphasis was also placed on calorie control and physical activity.

> "These new *Dietary Guidelines* represent our best science-based advice to help Americans live healthier and longer lives. The report gives action steps to reach achievable goals in weight control, stronger muscles and bones, and balanced nutrition to help prevent chronic diseases such as heart disease, diabetes and some cancers. Promoting good dietary habits is key to reducing the growing problems of obesity and physical inactivity, and to gaining the health benefits that come from a nutritionally balanced diet." [33]
>
> Tommy G. Thompson
> Former Secretary
> US Department of Health & Human Services

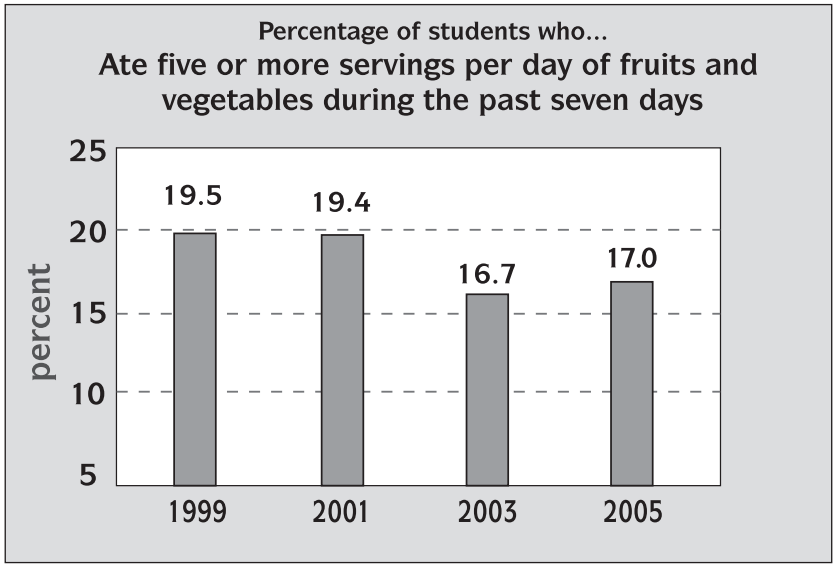
One of the recommendations of the *2005 Dietary Guidelines* is that every person consume a minimum of five fruit and vegetable servings per day.[34] The *2005 Dietary Guidelines* further recommend a selection of fruits and vegetables that includes all five vegetable subgroups (dark green, orange, legumes, starchy vegetables, and other vegetables) several times a week.

Realities

Dietary habits as measured by self-reported consumption of five or more servings of fruits and vegetables a day have not improved in recent years. Montana BRFSS data indicate that only 21% to 24% of adult Montanans consumed the recommended five servings of fruits and vegetables from 1994-2000. Similarly, in 1994, approximately 22% of the US population reported eating at least five servings of fruits and vegetables per day, and in 2000, the prevalence remained relatively unchanged at 23%.

The YRBS reports fruit and vegetable consumption by youth at an even lower rate than adults.

Figure 5



Source: 2005 Youth Risk Behavior Survey Montana High School Trend Report

No matter what kind of food a person eats, the basic rule to lose weight is that people must take in fewer calories than they expend. Fruits and vegetables are foods with "low energy density," that is, they have relatively few calories per gram. So people can eat a large volume of fruits and vegetables and feel full without consuming an excessive amount of calories. Several short-term studies suggest that increasing fruits and vegetables in people's diet results in their eating to the point of fullness while consuming fewer calories. [35] Substituting fruits and vegetables for more energy-dense foods appears to be a promising practice for helping people maintain or lose weight. In addition, fruits and vegetables are rich in micronutrients and phytochemicals, important for proper metabolic functioning and overall health.

Objective 2A To Increase Fruit and Vegetable Consumption:

By 2010, pilot at least four new interventions (selected from the list of strategies below) to increase access to fruits and vegetables in workplace and community settings.

Performance Indicator: Establishment of four pilot interventions to increase access to fruits and vegetables.

Measurement: Document review, including written descriptions or proposals of pilot interventions, and outcome data; observation and verbal reports of program implementation.

Strategies:

1. Identify and collaborate with a stakeholder team located in at least one American Indian reservation or Urban Indian Clinic to identify barriers (such as access, price, quality, habit, variety) and facilitative factors to fruit and vegetable consumption (such as buying local, congregate meal sites, food pantries, community gardens, and farmer's markets). Work with the team to plan and pilot interventions.
   Lead Agency: NAPA
2. Identify and collaborate with a stakeholder team located in a community of 1,500 to 5,000 residents to identify barriers and facilitative factors to fruit and vegetable consumption. Work with the team to plan and pilot interventions.
   Lead Agency: NAPA
3. Work with stakeholders in at least two urban areas to pilot policies and practices promoting fruit and vegetable consumption in the workplace.
   Lead Agencies: Missoula and Flathead City-County Health Departments
4. Maintain/expand initiatives in counties throughout Montana to teach low-income children and adults about affordably incorporating fruits and vegetables into the diet. Share information on best practices and lessons learned with other interested agencies through forums such as the statewide Eat Right Montana coalition.
   Lead Agencies: Food Stamp Nutrition Education, Expanded Food and Nutrition Education Program
5. Review and update 4H curriculum to ensure that the current USDA guidelines regarding fruit and vegetable consumption are incorporated.
   Lead Agencies: 4H, Extension Nutrition Education
6. Seek funding to assess the availability of fruits and vegetables in food banks/pantries, and propose methods of increasing fruit and vegetable inventories.
   Lead Agency: Montana Food Bank Network
7. Explore and implement methods of linking local producers of fruits and vegetables with consumers (such as schools, food banks and senior centers).
   Lead Agency: MSU Ad Hoc Farm to Table Project

8. Create and publicize an incentive system to recognize preschool and childcare facilities that exceed minimum standards, as set by the Child and Adult Care Food Program, for fruit and vegetable offerings.
   Lead Agency: DPHHS Child and Adult Food Care Program
9. Provide a NAP SACC kit to at least four interested preschools or daycare facilities, and deliver training workshops and technical assistance as appropriate.
   Lead Agency: NAPA
10. Offer mini-grants to public and nonprofit agencies to promote fruit and vegetable consumption, with a special emphasis on school- and preschool-based garden-to-table projects involving children.
    Lead Agencies: NAPA, Eat Right Montana

Objective 2B To Increase Fruit and Vegetable Consumption:

By 2010, increase the number of large* school districts that adopt written implementation plans that increase opportunities for fruit and vegetable consumption among students.

**The ten school districts in Montana with the highest enrollment.*

Performance Indicator: Written implementation plans that increase opportunities for consumption of fruits and vegetables.

Measurement: Pre/post surveys of the 10 largest districts in Montana, using a rating system to determine opportunities for fruit and vegetable consumption (based on Action for Healthy Kids model policy guidelines).

Strategies:

1. Publicize school wellness policy implementation tools highlighting model written implementation plans.
   Lead Agencies: Action for Healthy Kids, OPI
2. Provide technical assistance to schools as they implement written implementation plans to increase fruit and vegetable consumption.
   Lead Agency: Team Nutrition

Objective 2C To Increase Fruit and Vegetable Consumption:

Increase the percentage of Montana high school students who report eating five or more servings of fruits and vegetables per day during the previous 7 days from 17% in 2005 to 19% in 2009.

Performance Indicator: 19% (or more) of Montana high school students report eating 5 or more fruits or vegetables a day during the previous 7 days.

Measurement: YRBS.

Strategies:

1. Publicize school wellness policy implementation tools highlighting model written implementation plans.
   Lead Agencies: Action for Healthy Kids, OPI
2. Provide technical assistance to schools as they operationalize written implementation plans to increase fruit and vegetable consumption among students.
   Lead Agency: Team Nutrition

Objective 2D To Increase Fruit and Vegetable Consumption:

By 2010, increase from 27% in 2004 to 30% the proportion of Montana schools in which students can purchase fruit or vegetable snacks in vending machines or at the school store, canteen, or snack bar.

Performance Indicator: 30% (or more) of Montana schools report offering fruits or vegetables in vending machines or at the school store, canteen, or snack bar.

Measurement: Montana School Health Profiles.

Strategy:

1. Provide information about mini-grant opportunities and technical assistance to school administrators and food service personnel.
   Lead Agencies: NAPA, Eat Right Montana

Courtesy of Crow Tribal Health

Courtesy of 5 A Day

Goal 3: Promote Caloric Balance among Montana Residents

Courtesy of Crow Tribal Health

A basic premise of the 2005 *Dietary Guidelines* is that nutrient needs should be met primarily through consuming nutrient-dense foods that provide substantial amounts of vitamins and minerals (micronutrients) and relatively few calories. Foods that are low in nutrient density are foods that supply calories but relatively small amounts of micronutrients, sometimes none at all. The greater the consumption of foods or beverages that are low in nutrient density, the more difficult it is to consume enough nutrients without gaining weight, especially for sedentary individuals. The consumption of added sugars, saturated and *trans* fats, and alcohol provides calories while providing little, if any, of the essential nutrients.[36]

Maintaining weight requires balancing "energy input" (calories taken in through eating) with "energy output" (calories burned). *Losing* weight requires burning more calories than are taken in. Many aspects of modern life influence how easy or difficult it is to balance "calories in" with "calories out." Three developments that deserve special consideration are the increase in portion sizes, the increase in the amount of sugar-sweetened beverages that children and adults consume, and the increase in the amount of time that Americans spend watching television.

Portion Sizes

The following table demonstrates the difference in portion size in the past 20 years (energy input) as well as the exercise needed to burn the extra calories (energy output).

Energy Input and Energy Output 2004

Food item	20 years ago	Today	Caloric difference	Exercise needed to burn the extra calories
Bagel	140 calories 3" diameter	350 calories 6" diameter	210 calories	Raking leaves for 50 minutes *
Cheese-burger	333 calories	590 calories	257 cal.	Lifting weights for 1 hour, 30 minutes *
French fries	210 calories 2.4 ounces	610 calories 6.9 ounces	400 cal.	Walking leisurely for 1 hour, 10 minutes **
Soda	85 calories 6.5 ounces	250 calories 20 ounces	165 cal.	Working in the garden for 35 minutes **
Turkey sandwich	320 calories	820 calories	500 cal.	Riding a bike for 1 hour, 25 minutes **
Coffee	With whole milk and sugar 45 calories 8 ounces	With steamed whole milk and mocha syrup 350 calories 16 ounces	305 cal.	Walking for 1 hour, 20 minutes *
Pepperoni pizza	2 slices 500 calories	2 slices 850 calories	350 cal.	Golfing for 1 hour while walking and carrying clubs *
Chicken Caesar Salad	390 calories 1.5 cups	790 calories 3.5 cups	400 cal.	Walking the dog for 1 hour, 20 minutes **

** Approximations based on a 130 pound person*
*** Approximations based on a 160 pound person*
Source: National Heart, Lung and Blood Institute, Obesity Education Initiative www.nhlbi.nih.gov

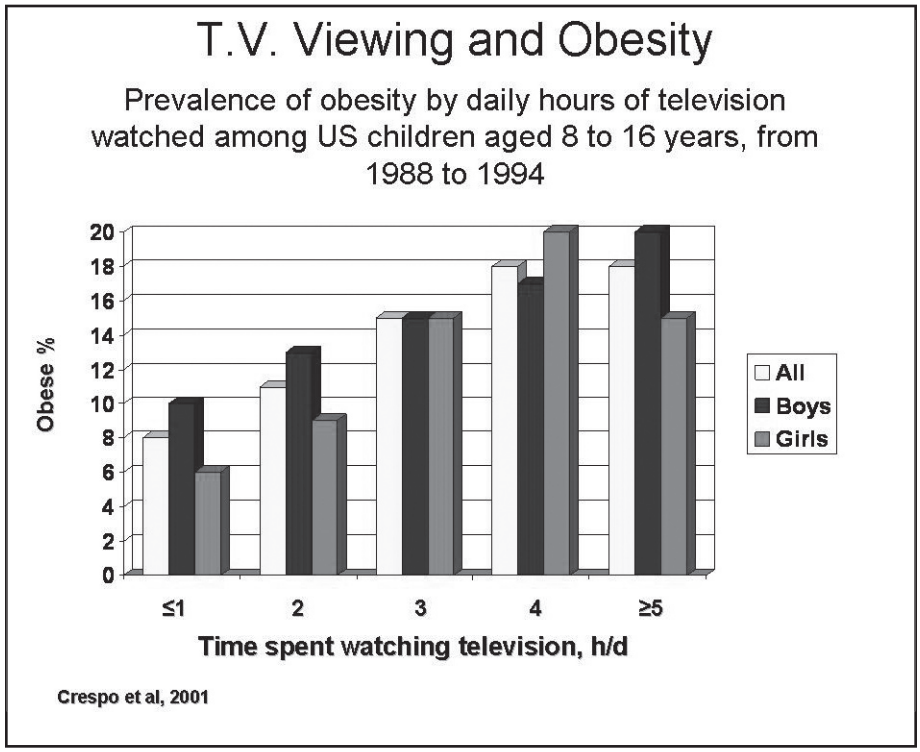
Sugar-Sweetened Beverages

From 1947 to 1997, the per capita consumption of carbonated soft drinks in the US increased from approximately 10 gallons to more than 50 gallons per year.[37] Consumption of sugar-sweetened soft drinks has become particularly high among children and adolescents.[38] Increased consumption of sugar-sweetened beverages is associated with increased BMI in children and adolescents, and decreased sweetened beverage consumption is associated with decreased BMI.[39]

Television

Parents surveyed in 2000 reported that American children typically spent more than four and a half hours each day watching television or videos, playing computer or video games, or surfing the internet; of this "screen time," more than half was spent watching television.[40] Time spent watching television is positively associated with overweight among children.[41] Proposed mechanisms to explain this association include the possibility that the time spent watching television may displace physical activity, thus decreasing energy output, and the possibility that television viewing may result in increased energy intake either because children eat snacks while watching TV or because they are exposed to, and respond to, more advertising promoting high-calorie foods.[42] One study has shown that children who reduce the amount of time they spend watching television and video tapes and playing video games also reduce their BMI.[43] According to the 2005 YRBS, approximately 1 of 4 Montana high school students spend three or more hours watching TV on an average school day, and YRBS trend data shows that younger students (7th and 8th graders) are consistently spending more time watching TV than high school students.[44] The American Academy of Pediatrics recommends that television and video time be limited to a maximum of two hours per day.[45]

Figure 6



Source: Crespo et al. TV watching, energy intake and obesity in US children. Arch Ped Ad Med, 2001; 155:360.

Objective 3A To Promote Caloric Balance:

Ensure that at least 4 stories are carried by Montana media each year to educate the public about the relationship between energy intake and energy output.

Performance Indicator: 4 or more stories printed or aired each year in Montana.

Measurement: Document review, including printed articles and transcripts of electronic public education articles.

Strategies:

1. Initiate relationships with media partners, including media serving predominantly rural and American Indian readers/viewers/listeners.
   Lead Agency: NAPA
2. Provide media partners with information about current science on factors impacting energy intake (portion size, sweetened beverage consumption, volumetrics) and energy output (screen time, built environment).
   Lead Agency: NAPA
3. Work with key stakeholders on reservations to support tribal newspapers in running stories featuring traditional Native American physical activities and eating habits that foster caloric balance.
   Lead Agency: NAPA
4. Work with practitioners in the fields of mental health and addiction to develop stories for newsletters and media outlets about possible links between mental health and healthy physical activity, eating behaviors, and caloric balance.
   Lead Agency: NAPA

Objective 3B To Promote Caloric Balance:

By 2010, increase the number of large* school districts that adopt written implementation plans that decrease opportunities for high-calorie sweetened beverage consumption among students.
**The ten school districts in Montana with the highest enrollment.*

Performance Indicator: Written implementation plans within the ten largest school districts that are consistent with guidelines for limiting student access to sweetened beverages.

Measurement: Pre/post surveys of the ten highest enrollment districts in Montana, using a rating system to determine consistency with sweetened beverage guidelines (based on Action for Healthy Kids model policy guidelines).

Strategies:

1. Publicize school wellness policy implementation tools highlighting model written implementation plans.
   Lead Agencies: Action for Healthy Kids, OPI
2. Disseminate the model Montana Beverage Association policy to all kindergarten, elementary, middle and high schools in Montana.
   Lead Agency: Montana Beverage Association
3. Provide training and technical assistance to schools as they adopt practices that decrease opportunities for sweetened beverage consumption among students.
   Lead Agency: Team Nutrition

Objective 3C To Promote Caloric Balance:

By 2008, identify and explore at least 3 unique issues that impact physical activity and eating behaviors in American Indian families.

Performance Indicator: Provision of financial resources to representatives of the Native American Workgroup to the Task Force for development of resources or events addressing at least three issues.

Measurement: Document review, including financial reports of monies provided for resources or events addressing issues identified.

Strategy:

1. Provide technical assistance and funding, as allowed through CDC, to support efforts organized/authorized by the Native American Workgroup.
   Lead Agency: NAPA
2. Seek resources to sponsor a *Healthy Families: Awakening Montana! Conference for Native Americans.*
   Lead Agency: University of Montana Continuing Education

Objective 3D To Promote Caloric Balance:

By 2010, reduce scheduled minutes per day of TV/screen time at one or more preschool/daycare facility.

Performance Indicator: Decreased minutes of TV/screen time at one facility.

Measurement: Activity logs listing the number of minutes of TV/screen time engaged in at one preschool/daycare facility prior to and following the initiation of the intervention.

Strategies:

1. Provide a NAP SACC kit to at least four interested preschools or day care facilities, and deliver training workshops and technical assistance as appropriate.
   Lead Agency: NAPA
2. Network with health care professional associations to determine current provider policies and practices that promote the reduction of TV/screen time among children.
   Lead Agency: NAPA

Objective 3E To Promote Caloric Balance:

By 2008, in one worksite of 40 or more employees, increase average physical activity and fruit and vegetable consumption among employees and monitor employees' BMI.

Performance Indicator: Increased physical activity and fruit and vegetable consumption.

Measurement: Compare self-reported baseline data on physical activity levels and fruit and vegetable consumption prior to intervention and after intervention.

Strategy:

1. Make a comprehensive nutrition and physical activity program available to all employees of the Flathead City-County Health Department. (Track changes in physical activity rates, fruit and vegetable consumption rates, and percent body fat as well as BMI.)
   Lead Agency: Flathead City-County Health Department

Goal 4: Increase Breastfeeding of Montana Infants

Courtesy of www.beautyofbreastfeeding.com

Recent studies suggest that breastfeeding may be an effective strategy for helping to prevent childhood obesity. For example, a study of 32,200 Scottish children observed at 39-42 months showed that the prevalence of obesity in these preschool-aged children was significantly lower among those that had been breastfed.[46] Another study, conducted in Germany, analyzed data on 9,357 5- and 6-year-old children and concluded that breastfeeding in infancy was a protective factor against obesity in these school-aged children, and that the protective effect increased as the duration of breastfeeding increased.[46] In the US, an analysis of 15,000 children 9 to 14 years of age found that children who had been exclusively or mostly fed breast milk for the first six months of life had a significantly lower risk of being overweight in adolescence than did children who had been exclusively or mostly fed formula.[48]

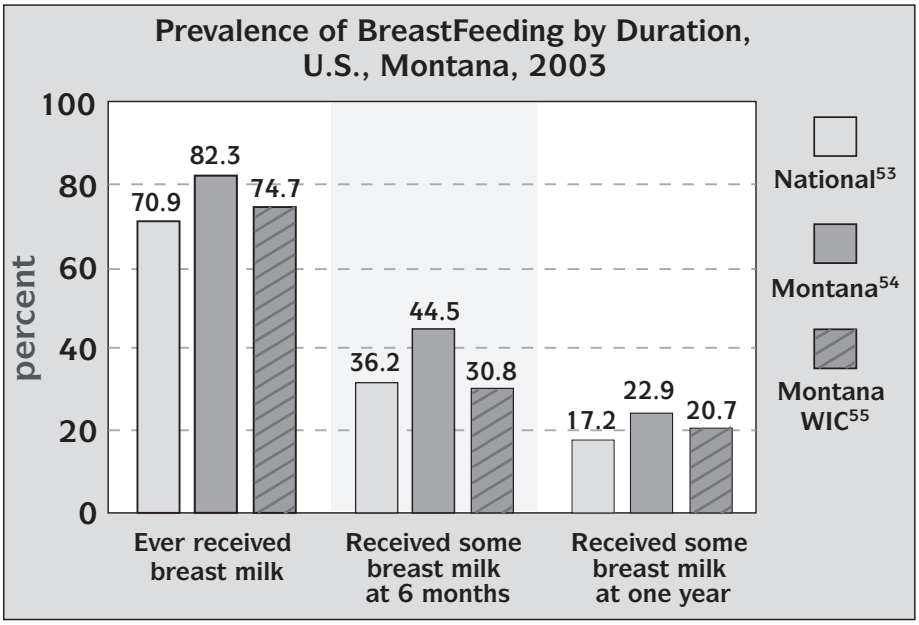
In addition to preventing obesity, scientific research has proven that "breastfed infants have a healthier start in life."[49] Breast milk provides the optimum balance of nutrients for infant growth and development as well as protection against viruses, bacteria, and parasites. Although infant formulas are closely regulated by the Food and Drug Administration for nutritional quality, the exact composition of breast milk cannot be duplicated.[50]

Because breastfeeding provides an intimate interaction between mother and infant, it is impossible to determine whether weight control is associated with the physiologic qualities of breast milk or the feeding and parenting patterns associated with nursing. The American Academy of Pediatrics recommends that mothers feed their infants with breast milk exclusively for the first six months.[51] To move closer to that ideal, the *Healthy People 2010* goals are: 75% of women will initiate breastfeeding; 50% of women will continue breastfeeding for six months; and 25% of women will continue breastfeeding for one year.[52]

Breastfeeding initiation rates may vary from one region to another in Montana. Overall, the initiation rate in the state is 82% – higher than the *Healthy People 2010* goal. However, fewer than half of all Montana infants are still receiving any breast milk at six months. Evidence collected by NAPA staff through focus groups and interviews with key informants around the state suggests that women stop breastfeeding prematurely for a variety of reasons, including:

- Embarrassment
- Low maternal motivation
- Breastfeeding difficulties
- Lack of education/misconception (not enough milk to feed baby)
- Lack of health care provider support and overall lactation support and promotion
- Work-related obstacles
- Returning to work
- Lack of family support
- Lack of access to peers or health care professionals who can help with breastfeeding difficulties

Figure 7



Source: 2003 National Immunization Survey and 2003 PedNSS Report

Breastfeeding Coalition

In 2005, the CDC sponsored a training in Montana entitled *Using Loving Support to Build a Breastfeeding-Friendly Community*. Forty-four people attended the training, including: nurses, pediatricians, lactation consultants, public health professionals, and representatives from hospitals, health care associations, local breastfeeding coalitions, and nonprofit organizations. Training participants are now forming a statewide Breastfeeding Coalition.

For more information about the Breastfeeding Coalition or to become involved, contact NAPA at (406) 994-5710 or email lhellenga@montana.edu

One of the first tasks of the Coalition is to assist Montana hospitals in achieving "Baby Friendly" recognition. To be "Baby Friendly," a hospital must have the following *Ten Steps to Successful Breastfeeding* in place:[56]

Step 1	Have a written breastfeeding policy that is routinely communicated to all health care staff
Step 2	Train all health care staff in skills necessary to implement this policy
Step 3	Inform all pregnant women about the benefits and management of breastfeeding
Step 4	Help mothers initiate breastfeeding within a half-hour of birth
Step 5	Show mothers how to breastfeed and how to maintain lactation even if they should be separated from their infants
Step 6	Give newborn infants no food or drink other than breast milk, unless medically indicated
Step 7	Practice rooming-in: allow mothers and infants to remain together 24 hours a day
Step 8	Encourage breastfeeding on demand
Step 9	Give no artificial teats or pacifiers (also called dummies or soothers) to breastfeeding infants
Step 10	Foster the establishment of breastfeeding support groups and refer mothers to them on discharge from the hospital or clinic

The Coalition will focus special attention on Step 10 and will promote additional strategies that can prolong breastfeeding, including CDC-recommended strategies in the following areas: maternity care practices initiated in the hospital; support for breastfeeding in the workplace; peer support; lactation education for mothers; professional support by health professionals; and marketing initiatives that support or encourage breastfeeding.

Objective 4A To Increase Breastfeeding:

By 2006, establish a statewide Breastfeeding Coalition to promote "Breastfeeding Friendly" communities.

Performance Indicators:

- Intact representative Coalition.
- Activities consistent with promotion of "Breastfeeding Friendly" communities.

Measurement: Document review, including coalition membership list, meeting agendas and minutes.

Strategies:

1. Identify and enlist Coalition members.
   Lead Agencies: NAPA, WIC
2. Assist the Coalition in developing a strategic plan.
   Lead Agency: NAPA
3. Assist the Coalition in securing funding needed to implement the strategic plan.
   Lead Agency: NAPA

Objective 4B To Increase Breastfeeding:

By 2010, increase by at least 10% the number of Montana hospitals (that deliver babies) that have at least 3 of the *Ten Steps to Successful Breastfeeding* within their infant feeding policy.

Performance Indicator: Hospitals reporting policies that are consistent with the *Ten Steps to Successful Breastfeeding*.

Measurement: Pre/post Hospital Breastfeeding Surveys, administered to all Montana hospitals that deliver babies, with items measuring hospital conformance to the *Ten Steps to Successful Breastfeeding*.

Strategies:

1. Engage health care professionals, through their professional associations, to collect information from and disseminate information to association members regarding policies and practices promoting breastfeeding initiation.
   Lead Agency: NAPA
2. Using the self-appraisal tool from Baby-Friendly USA to review policies and practices in hospitals, develop and implement a system to assess current breastfeeding initiation policies and practices; tracking systems for breastfeeding initiation rates; and breastfeeding initiation rates as available.[57]
   Lead Agency: NAPA
3. Work with stakeholders to develop and disseminate to health care facilities a model maternal care practices policy based on the *Ten Steps to Successful Breastfeeding* to support breastfeeding initiation.
   Lead Agency: NAPA, Coalition
4. Provide education and training to support nurses as they adopt and implement

policies and care guidelines to help mothers initiate breastfeeding in health care facilities.
Lead Agency: NAPA, Coalition

5. Identify and support stakeholder teams to maintain/expand or plan/implement culturally appropriate programs promoting breastfeeding among American Indians.
Lead Agency: NAPA

Objective 4C To Increase Breastfeeding:

By 2009, secure legislation supporting breastfeeding in the workplace across the state.

Performance Indicator: The enactment of proposed legislation related to supporting breastfeeding in Montana workplaces.

Measurement: Document review, including proposed and enacted Montana state legislation related to breastfeeding in workplaces.

Strategy:

1. Educate legislators about similar legislation in other states, and provide assistance in developing legislation to be adopted in Montana.
Lead Agency: Montana Dietetic Association
2. Identify proponents to facilitate passage of legislation supporting breastfeeding in the workplace.
Lead Agency: Montana Dietetic Association

Objective 4D To Increase Breastfeeding:

By 2010, conduct a pilot project on policies and practices to promote breastfeeding in worksites in at least one community and disseminate the results.

Performance Indicators:
- Implementation of policies and practices within worksites in one community.
- Dissemination of changes resulting from pilot policies and practices.

Measurement: Document review, including description of pilot policies/procedures implemented, outcome data, and process used to disseminate data and lessons learned.

Strategy:

1. Provide technical assistance and resources to employers in Missoula as they adopt "Breastfeeding Friendly" practices.
Lead Agencies: Missoula City-County Health Department

Evaluation

Context

Evaluation of the *State Plan* will be guided by a philosophy of continuous program improvement. Evaluation activities will be ongoing, with an emphasis on the use of information for refining strategies. Our focus will be on collecting and reporting data that program personnel and various stakeholder groups understand and value. We believe that this approach will facilitate the most effective and efficient use of resources during our capacity building phase. Initial evaluation activities will focus on assessing short and intermediate range outcomes, including progress toward achieving objectives outlined in the plan.

Expected Benefits

Following from the socio-ecological model that guided development of the *State Plan*, we expect improvements to occur at multiple levels within our state. At an individual level, we expect that citizens of Montana will enjoy improved health outcomes and better quality of life. We hope that families will have more opportunities to engage in healthy lifestyle activities and that health care costs will be reduced for families. We anticipate community environments with greater physical activity capacity, breastfeeding supports, and access to high quality and affordable fruits and vegetables. These environmental changes should also encourage reduced health care costs for local businesses. At a regional and state level, we expect increased policies that support community level health initiatives. We anticipate increased integration of resources to support healthy nutrition and physical activity across Montana, resulting in reduced health care cost burden at the state level.

Evaluation Team

An evaluation team will be established to plan, conduct, and oversee evaluation activities. This team will consist of the following members: (1) at least one member of the NAPA staff; (2) a program evaluator; (3) personnel responsible for implementing strategies/objectives being evaluated; (4) at least one member of the Cardiovascular Disease / Obesity Prevention Task Force. Evaluation team membership will change, depending on the area of the plan being evaluated.

The evaluation team will be responsible for reviewing and approving the evaluation design for specific plan areas (objectives and strategies). The team will review evaluation data as it is collected and assist with the interpretation of findings. Team members will suggest additional analytic strategies and evaluation questions as they arise during the evaluation process. They will also be responsible for disseminating evaluation results to their local stakeholder groups.

Stakeholder Roles

Stakeholder involvement in ongoing evaluation activities will also be different for each evaluation area. The evaluation team will articulate major stakeholder groups for each evaluation topic. Stakeholders may assist in data collection or interpretation of results. They may also be participants in determining how data will be used to make program refinements. Other stakeholder groups may be primary receiving audiences of information.

Evaluation results will be shared with the Cardiovascular Disease / Obesity Prevention Task Force and major partners on a regular basis. Updates about the evaluation process and findings will be provided to the Task Force members at least annually. Task Force members and major partners will be encouraged to provide input about the value of evaluation results and approaches. They will also be asked to share additional questions

that emerge as a result of evaluation findings. These questions will be included in the evaluation process, as appropriate.

The evaluation team and Task Force members will identify community stakeholders who are the primary audiences for evaluation reporting. The evaluation team will develop a plan to disseminate relevant information for each identified group. Evaluation plans and results will also be shared with funders at regular intervals. Funders will be asked whether evaluation information meets their particular needs and in what areas the evaluation process can be improved.

Courtesy of 5 A Day

Afterword

An Evolving Plan

This *State Plan* has been developed by a Task Force of stakeholders who have knowledge of many obesity prevention activities taking place around the state. Because there is dynamic energy behind the *State Plan*, Task Force members, NAPA staff, and personnel of lead agencies (as listed in this document) will continue to engage partners, create ideas, and generate activities. Such activities will be periodically publicized through the NAPA web site at www.montana.edu/mtnapa.

Please let us know if:

- You are involved with an organization that is promoting physical activity, fruit and vegetable consumption, breastfeeding, and/or caloric balance. We want to assure that your organization is duly recognized in this plan.
- You have an idea for a new project that you would like to discuss with NAPA staff.

It is our hope that the NAPA web site will help make the *State Plan* an evolving document, and that stakeholders around the state will use the web site to exchange information and share success stories.

Additional Opportunities

Many creative objectives and strategies were generated by Task Force workgroups for inclusion in the *State Plan*. However, not all of those suggestions could be included because of limited human and/or financial resources. When no commitment was obtained from a lead agency, the objective or strategy was moved to an "additional opportunities " category. These ideas, summarized below, will be reviewed periodically by the Task Force to determine whether circumstance have changed and the opportunity can be developed.

Health Care Workgroup Ideas:

- Increase the percentage of Montana health care providers who refer overweight and obese patients to a dietitian by disseminating community-specific resources on consulting dietitians, fitness facilities, and weight management for providers to give to their overweight and obese patients.
- Increase the percentage of health care providers who give their overweight and obese patients an "exercise prescription' to promote regular physical activity by developing and distributing exercise prescription pads for health care providers to use as a weight management tool.
- Increase the percentage of Montana health care providers who consistently discuss the health risks of obesity with their overweight and obese patients by developing a chart-based reminder system for clinic staff to use when counseling overweight and obese patients.
- Increase the percentage of health care providers who regularly assess the height, weight, and BMI of youth by disseminating resource materials to pediatricians. These resource materials would: 1) assist parents in helping their children to achieve and maintain a healthy weight through lifestyle behavior change and family interventions; and 2) assist communities and schools in collectively developing and implementing a plan on pediatric weight management that is appropriate for their individual community and setting.

Community Workgroup Ideas:

- Increase policies that support mixed-use community design, placement of parks, sidewalks, paths and trails in and around towns by increasing the number of Montana communities with: 1) government-endorsed written plans to complete trail

systems; and 2) a city or county adopted master park plan, including guidelines for environmentally sound new park development (such as designing all new parks for both active and passive users, for sports groups and self-directed activities, and for people of all ages and abilities).

- Increase physical activity among older adults by working with: 1) DPHHS Aging Services and Montana Parks and Recreation to promote trail usage by older adults; 2) schools and malls to increase access to areas where the elderly can be active during inclement weather; and 3) senior centers to promote ongoing physical activity programs.
- Decrease the proportion of persons with disabilities who report environmental barriers to accessing public facilities for physical activity by increasing the number of recreational facilities that are compliant with the Americans with Disabilities Act (ADA). This would be accomplished by: 1) improving surfacing on parking areas, RV pads, pathways and trails; 2) upgrading restrooms for ADA compliance; 3) removing impediments to accessibility at primitive and remote sites if possible; 4) offering accessible hunting opportunities; 5) providing ADA compliant park benches and picnic tables; 6) working with the Montana Council on Development Disabilities and Montana Parks and Recreation to promote park and trail use by people with disabilities; and 7) educating persons with disabilities about the availability of ADA compliant recreational sites and activities.
- Increase food security and access to nutritious foods among low-income families by working with: 1) public assistance programs to increase participation in the Food Stamp Program, WIC, School Nutrition and other food assistance programs; 2) the Montana Food Bank Network, grocery stores and other donors to improve the quality of food available to low-income individuals; and 3) educating low-income families about purchasing and eating nutritious foods on a budget.
- Educate parents about positive feeding relationships, the value of family meals, and proper nutrition by: 1) increasing the number of health care providers who counsel parents about positive feeding relationships as a preventative health measure; 2) launching a social marketing campaign about the importance of family meals; 3) increasing the number of grocery stores and restaurants that post nutrition labels on products; 4) increasing the number of healthy choices in vending machines; and 5) educating adults involved in after school and community youth programs about the importance of providing nutritious snacks.

Native American Workgroup Ideas:

- Deal with health disparities in the Montana population (rural social change impacts the food supply in rural communities) by: 1) measuring "food insecurity;" 2) researching the effects of poverty on health; 3) promoting "historical trauma" awareness through community and tribal colleges; 4) determining baseline data on existing food bank services; 5) dealing with the "feast or famine phenomenon" by assuring adequately stocked and sustainable food banks in all communities; 6) researching and documenting the issue of equal access to resources in Montana and eliminating competitive funding; 7) providing child care so that community members can participate in health education and health enhancement activities, and assuring that congregate child care meets high standards, such as trained "safe sitters" who are paid for their work; 8) providing transportation to people in need of services; 9) assuring equal access to services from a culturally congruent perspective; 10) promoting exemplary WIC services in all communities; 11) collaborating with the Golden Triangle Economic Development Council to reduce health disparities in that region.
- Optimize a rich array of existing community resources by: 1) developing a resource wheel; 2) developing community resource directories to inform community mem-

bers of existing community resources; 3) considering youth as resources and engaging community youth groups in meaningful community activities.

- Develop community coalitions and networks by: 1) facilitating the movement of community stakeholders from a perspective of "scarcity" to a perspective of "abundance" and gain commitments for collaboration; 2) sending minutes of community coalition meetings to Tribal Councils and/or City/County Commissions, and inviting members to attend meetings; 3) using social marketing strategies to acknowledge successful collaborative efforts (such as the Northern Cheyenne Boys and Girls Club straw bale building or the breastfeeding coalition formed on the Flathead Reservation).
- Educate professionals and community members to: 1) support each child's normal growth with appropriate feeding from birth; 2) advocate for home economics as a curriculum option in middle and secondary schools to impact nutritious meal-planning skills, parenting skills, and consumer skills; 3) strengthen the collaborative effort between USDA-employed staff and nutrition professionals employed by tribal and Indian Health Service programs; 4) provide media literacy and social marketing education; 5) promote avenues for healing; and 6) identify funding sources.
- Promote policy changes in the State Legislature and Tribal Councils to: 1) eliminate soda pop in school vending machines, and replace with juice and/or water; 2) deal with the issue of the sustainability of healthy foods; and 3) provide centralized services for food banks, commodities and a community demonstration kitchen.
- Change the environment to facilitate enjoyable physical activities through: 1) community and national forest trail systems; 2) school and community playgrounds; 3) promoting family activities; and 4) supervised, structured play activities.

Worksite Workgroup Ideas: All the major ideas were incorporated.

Children/Youth/Family Workgroup Ideas:

- Increase the proportion of Montana parents/guardians who recognize 7 important nutrition, physical activity, and anti-tobacco messages; 5,4,3,3,2,1,0 – 5 fruits and vegetables, 4 glasses of water, 3 servings of low-fat dairy products, 3 servings of whole grain foods, less than 2 hours of screen time, 1 hour of physical activity, and 0 tobacco.

Courtesy of Travel Montana

Appendices

Appendix A

Definition of Terms and Acronyms

Action for Healthy Kids: This nonprofit organization was formed to address the epidemic of overweight, undernourished and sedentary youth by focusing on changes at school.

Big Sky Fit Kids: Offered every spring by BigSky State Games, this is a free youth team wellness program that encourages youth age 18 and under to develop healthy physical activity and eating habits.

BMI: The Body Mass Index expresses the relationship (or ratio) of weight-to-height, is measured in kg/m2, and is an indicator of overweight and obesity.

BMI-For-Age: BMI-for-age, based on standardized growth charts, is a measurement recommended for children two and older and for adolescents to screen for risk of overweight and identify children who may need further assessment and possible treatment. Detailed information on growth charts is available at http://www.cdc.gov/growthcharts/.

BRFSS: Behavioral Risk Factor Surveillance System.

CACFP: The mission of the DPHHS Child and Adult Care Food Program is to influence healthy lifestyle choices by facilitating program participation and compliance, funding nutritious meals, and providing effective training.

CDC: Centers for Disease Control and Prevention.

Community Guide: *The Community Guide to Preventive Services*, published by the US Centers for Disease Control and Prevention, is a systematic review of science-based population-oriented health interventions.

DPHHS: The Montana Department of Public Health and Human Services.

NAPA: The Montana Nutrition and Physical Activity Program.

NAP SACC: The Nutrition and Physical Activity Self-Assessment for Child Care is a tool developed as part of the North Carolina Healthy Weight Initiative aimed at improving the eating and physical activity environments in child care centers.

Obese: A term describing adults with a BMI at or above 30.0 kg/m2.

OPI: Montana Office of Public Instruction.

Overweight: A term describing adults with a BMI of 25.0 to 29.9 kg/m2 or children and young people age 2-19 with a BMI-for-age at or above the 95th percentile.

Overweight (at risk for): A term describing children and young people ages 2-19 with a BMI-for-age at or above the 85th percentile but less than the 95th percentile.

Safe Routes to School (SR2S): Programs sustained by parents, community members, community leaders and local, state, and federal governments to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to school. Administered by the MT Department of Transportation.

Shape Up Montana: Offered every spring by Big Sky State Games, this is a team wellness program that challenges adults to be physically active and to eat healthfully.

Steps to a New You: A program developed by Wellness in the Rockies and offered through MSU Extension Services, designed to move adults toward healthier lifestyles.

USDA: United States Department of Agriculture.

Volumetrics: A theory based on the idea that people tend to eat a certain weight of food each day. By selecting foods that have relatively few calories per gram—such as fruits, vegetables, and foods that contain a lot of water—people may be able to avoid hunger, feel satisfied, and lose weight.

WIC: The Special Supplemental Nutrition Program for Women, Infants and Children provides nutrition services to: pregnant women; breast-feeding women; women who recently gave birth; infants (birth to 12 months); and children (one to five years of age) who are determined by a health professional to be at medical or nutritional risk and below 185% of Federal Poverty Income Guidelines.

Appendix B

Fifteen Priorities

Fifteen Priorities for Action Identified in the *Call to Action to Prevent and Decrease Overweight and Obesity*

- Change the perception of overweight and obesity at all ages. The primary concern should be one of health and not appearance.
- Educate all expectant parents about the many benefits of breastfeeding.
- Educate health care providers and health profession students in the prevention and treatment of overweight and obesity across the life span.
- Provide culturally appropriate education in schools and communities about healthy eating habits and regular physical activity, based on the Dietary Guidelines for Americans, for people of all ages. Emphasize the consumer's role in making wise food and physical activity choices.
- Ensure daily, quality physical education in all school grades. Such education can develop the knowledge, attitudes, skills, behaviors, and confidence needed to be physically active for life.
- Reduce time spent watching television and in other similar sedentary behaviors.
- Build physical activity into regular routines and playtime for children and their families. Ensure that adults get at least 30 minutes of moderate physical activity on most days of the week. Children should aim for at least 60 minutes.
- Create more opportunities for physical activity at worksites. Encourage all employers to make facilities and opportunities available for physical activity for all employees.
- Make community facilities available and accessible for physical activity for all people, including the elderly.
- Promote healthier food choices, including at least 5 servings of fruits and vegetables each day and reasonable portion sizes at home, in schools, at worksites, and in communities.
- Ensure that schools provide healthful foods and beverages on school campuses and at school events.
- Create mechanisms for appropriate reimbursement for the prevention and treatment of overweight and obesity.
- Increase research on behavioral and environmental causes of overweight and obesity.
- Increase research and evaluation on prevention and treatment interventions for overweight and obesity, and develop and disseminate best practice guidelines.
- Increase research on disparities in the prevalence of overweight and obesity among racial and ethnic, gender, socioeconomic, and age groups, and use this research to identify effective and culturally appropriate interventions.

Appendix C

A Note on School Wellness Policies and Practices

During the public comment process in the development of this *State Plan*, a number of community members suggested that schools develop very specific policies detailing how better nutrition and more physical activity will be promoted.

By the beginning of the 2006-2007 school year, all schools must have a school wellness policy in place if they want to continue to be eligible for federal reimbursements for School Nutrition Programs (the National School Lunch Program, the School Breakfast Program, and the Special Milk Program). The Montana School Board Association has

developed a model school wellness policy for schools to adopt. It provides general guidance and does not include specific recommendations due to the fact that many Montana school boards prefer broad policy language. The details of policy implementation steps are included in a written implementation plan that outlines the policy's nutrition, physical activity and student wellness goals.

Because the school wellness policy mandate deadline for policy adoption will happen at roughly the same time this *State Plan* is published (June 2006), we believe we can have the most impact by working with schools to develop written implementation plans. Creating the written implementation plans will provide schools with the opportunity to document their intention to implement specific practices. Action for Healthy Kids will take the lead on collecting resources to help schools make decisions about which specific practices to adopt. Team Nutrition, OPI, NAPA, and the Montana School Board Association will publicize these resources to schools. NAPA will provide technical assistance and will monitor the development and quality of the written implementation plans adopted by the state's largest school districts and, as possible, will also work with Montana's many small schools.

Appendix D

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- Robert Wynia, MD

Appendix E

Strategy Chart: Social Area and Socio-Ecological Sphere

	SOCIAL AREA					SOCIO-ECOLOGICAL				
STRATEGY	Healthcare	Worksite	Community	Children/Youth/ Family		Individual	Interpersonal	Institutional/ organizational	Community	Policy/Systems/ Environment
Physical Activity										
Obj. 1A, Strat. 1			X						X	
Obj. 1A, Strat. 2			X						X	
Obj. 1A, Strat. 3			X						X	
Obj. 1A, Strat. 4			X						X	
Obj. 1B, Strat. 1				X				X		
Obj. 1C, Strat. 1				X				X		
Obj. 1C, Strat. 2				X				X		
Obj. 1C, Strat. 3				X				X		
Obj. 1C, Strat. 4				X				X		
Obj. 1C, Strat. 5				X				X		
Obj. 1D, Strat. 1				X				X		
Obj. 1D, Strat. 2				X				X		
Obj. 1D, Strat. 3				X				X		
Obj. 1D, Strat. 4				X				X		
Obj. 1D, Strat. 5				X				X		
Obj. 1E, Strat. 1		X						X		
Obj. 1E, Strat. 2			X				X			
Obj. 1E, Strat. 3				X			X			
Obj. 1E, Strat. 4				X				X		
Obj. 1E, Strat. 5				X					X	
Obj. 1E, Strat. 6			X				X			
Obj. 1E, Strat. 7			X						X	
Obj. 1F, Strat. 1				X		X				
Obj. 1F, Strat. 2				X					X	
Obj. 1F, Strat. 3				X		X				
Obj. 1F, Strat. 4				X					X	
Fruits & Vegetables										
Obj. 2A, Strat. 1			X						X	
Obj. 2A, Strat. 2			X						X	
Obj. 2A, Strat. 3		X						X		
Obj. 2A, Strat. 4				X		X				
Obj. 2A, Strat. 5				X				X		
Obj. 2A, Strat. 6			X						X	
Obj. 2A, Strat. 7			X						X	

	SOCIAL AREA					SOCIO-ECOLOGICAL				
STRATEGY	Healthcare	Worksite	Community	Children/Youth/ Family		Individual	Interpersonal	Institutional/ organizational	Community	Policy/Systems/ Environment
Obj. 2A, Strat. 8				X					X	
Obj. 2A, Strat. 9				X				X		
Obj. 2A, Strat. 10				X					X	
Obj. 2B, Strat. 1				X				X		
Obj. 2B, Strat. 2				X				X		
Obj. 2C, Strat. 1				X				X		
Obj. 2C, Strat. 2				X				X		
Obj. 2D, Strat. 1				X				X		
Caloric Balance										
Obj. 3A, Strat. 1			X						X	
Obj. 3A, Strat. 2			X						X	
Obj. 3A, Strat. 3			X						X	
Obj. 3A, Strat. 4			X						X	
Obj. 3B, Strat. 1				X				X		
Obj. 3B, Strat. 2				X				X		
Obj. 3B, Strat. 3				X				X		
Obj. 3C, Strat. 1			X			X				
Obj. 3C, Strat. 2			X					X		
Obj. 3D, Strat. 1				X				X		
Obj. 3D, Strat. 2	X								X	
Obj. 3E, Strat. 1		X						X		
Breastfeeding										
Obj. 4A, Strat. 1				X					X	
Obj. 4A, Strat. 2				X					X	
Obj. 4A, Strat. 3				X					X	
Obj. 4B, Strat. 1	X							X		
Obj. 4B, Strat. 2	X							X		
Obj. 4B, Strat. 3	X							X		
Obj. 4B, Strat. 4	X							X		
Obj. 4B, Strat. 5			X						X	
Obj. 4C, Strat. 1		X								X
Obj. 4C, Strat. 2		X								X
Obj. 4D, Strat. 1		X						X		

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